

PTO-0010

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ma, et al.

Serial No.: 10/755,863

Filing Date: January 12, 2004

For: APPARATUS AND METHOD FOR SOLUTION  
PLASMA SPRAYING

)  
) Group Art Unit: 1763  
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) Examiner:  
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)  
)

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §§ 1.56, 1.97 AND 1.98**

Sir:

In compliance with the duty to disclose, submitted herewith is form PTO-A820 (PTO-1449) listing publication(s) of which those designated by 37 CFR § 1.56 are aware. Copies of the non-United States patents or published applications are enclosed.

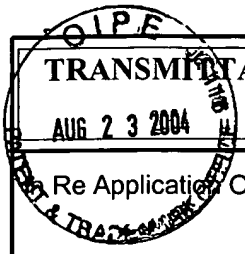
The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made, or an admission that the information cited is, or is considered to be, material to patentability.


Respectfully submitted,

CANTOR COLBURN LLP

By: Patricia S. DeSimone  
Patricia S. DeSimone  
Registration No. 48,137

Date: August 19, 2004  
Customer No.: 23413  
Telephone: (860) 286-2929

 <b>TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT</b> (Under 37 CFR 1.97(b) or 1.97(c))				Docket No. INF-0010	
Re Application Of: Ma, et al.					
Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/755,863	January 12, 2004	NYA	23413	1763	1052
Title: APPARATUS AND METHOD FOR SOLUTION PLASMA SPRAYING					
<p>Address to: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450</p> <p><b>37 CFR 1.97(b)</b></p> <p>1. <input checked="" type="checkbox"/> The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.</p> <p><b>37 CFR 1.97(c)</b></p> <p>2. <input type="checkbox"/> The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:</p> <p><input type="checkbox"/> the statement specified in 37 CFR 1.97(e);</p> <p><b>OR</b></p> <p><input type="checkbox"/> the fee set forth in 37 CFR 1.17(p).</p>					

 <b>TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT</b> (Under 37 CFR 1.97(b) or 1.97(c))	Docket No. <b>INF-0010</b>
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In Re Application: **Ma, et al.**

Application No. <b>10/755,863</b>	Filing Date <b>January 12, 2004</b>	Examiner <b>NYA</b>	Customer No. <b>23413</b>	Group Art Unit <b>1763</b>	Confirmation No. <b>1052</b>
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Title: **APPARATUS AND METHOD FOR SOLUTION PLASMA SPRAYING**

**Payment of Fee**

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

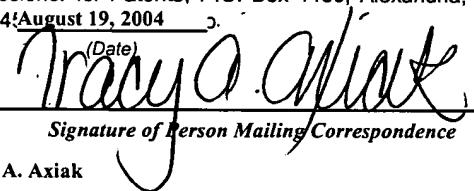
- ☐ A check in the amount of \_\_\_\_\_ is attached.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. **06-1130** as described below.
- ☐ Charge the amount of \_\_\_\_\_
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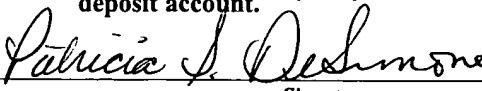
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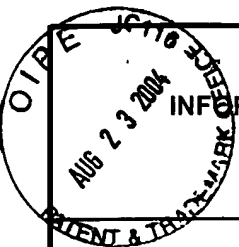
\*This certificate may only be used if paying by deposit account.

  
Signature

Dated: **August 19, 2004**

Patricia S. DeSimone  
Registration No. 48,137  
Customer No. 23413  
Phone No. (860) 286-2929

cc:



## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY DOCKET NO.

INF-0010

APPLICATION NO.

10/755,863

APPLICANT(S)

Ma, et al.

FILING DATE

January 12, 2004

GROUP ART UNIT

1763

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,982,067	1/1/1991	Marantz, et al.	219	121.47	11/4/1988
	5,032,568	7/16/1991	Lau, et al.	505	1	9/1/1989
	5,421,895	6/6/1995	Tsubouchi, et al.	118	726	12/22/1992
	5,609,921	3/11/1997	Gitzhofer, et al.	427	446	8/26/1994
	5,620,524	4/15/1997	Fan, et al.	118	726	2/27/1995

## U.S. PATENT APPLICATION PUBLICATIONS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	UK2100621	11.06.1981	United Kingdom				
	WO 97/05994	20.02.1997	PCT				
	WO 00/00660	06.01.00	PCT				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

			Bouyer, et al. "Characterization of SiC and Si <sub>3</sub> N <sub>4</sub> coatings synthesized by means of inductive thermal plasma from disilane precursors". Applied Organometallic Chemistry. Appl. Organometal. Chem. 2001; 15: 833-840

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	ATTY DOCKET NO. <b>INF-0010</b>	APPLICATION NO. <b>10/755,863</b>
	Ma, et al.	
	FILING <b>January 12, 2004</b>	GROUP ART <b>1763</b>

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,744,777	4/28/1998	Bernecki, et al.	219	121.47	5/31/1996
		5,858,470	1/12/1999	Bernecki, et al.	427	453	8/1/1997
		5,876,683	3/2/1999	Glumac, et al.	423	325	11/2/1995
		6,025,034	2/15/2000	Strutt, et al.	427	450	2/5/1998
		6,132,653	10/17/2000	Hunt, et al.	264	5	4/16/1999

U.S. PATENT APPLICATION PUBLICATIONS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>			
			Delbos, et al. "Plasma Spray Elaboration of Finely Structured YSZ Thin Coating by Liquid Suspension Injection". Thermal Spray 2003: Advancing the Science & Applying the Technology, (Ed.) C. Moreau and B. Marple, Published by ASM International, Materials Park, Ohio, USA, 2003. pp 661-669
			Devi, et al. "Comparison of citrate-nitrate gel combustion and precursor plasma spray processes for the synthesis of yttrium aluminum garnet". J. Mater. Res., Vol. 17, No. 11, Nov. 2002. pp 2846-2851

EXAMINER	DATE CONSIDERED
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		6,195,504	2/27/2001	Horie, et al.	392	394	11/19/1997	
		6,277,448	8/21/2001	Strutt, et al.	427	452	6/4/1999	
		6,432,487	8/13/2002	Graham, et al.	427	454	12/28/2000	
		6,447,848	9/10/2002	Chow, et al.	427	446	6/30/1998	
<b>U.S. PATENT APPLICATION PUBLICATIONS</b>								
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<b>FOREIGN PATENT DOCUMENTS</b>								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>								
		Davi, et al. "Single-step deposition of Eu-doped Y2O3 phosphor coatings through a precursor plasma spraying technique". J. Mater. Res., Vol 17, No. 11, Nov. 2002. pp. 2771-2774						
		Karthikeyan, et al. "Preparation of Nanophase Materials by Thermal Spray Processing of Liquid Precursors". NanoStructured Materials, Vol. 9, pp. 137-140. 1997						
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							YES	NO

OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>			
			Karthikeyan, et al. "nanomaterial Deposits Formed by DC Plasma Spraying of Liquid Feedstocks". J. Am. Ceram. Soc., 81 (1) 121-128 (1998)
			Karthikeyan, et al. "Nanomaterial Powders and Deposits Prepared by Flame Spray Processing of Liquid Precursors". NanoStructured Materials, Vol. 8. No. 1, pp. 61-74, 1997

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
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<b>FOREIGN PATENT DOCUMENTS</b>								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>								
			Ma, et al. "Intermediate Temperature SOFC Based on Fully Integrated Plasma Sprayed Components". 6 pages					
			Ma, et al. "Study of Unique Microstructure in SPS Ceramic NanoCoatings". 6 pages					
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>				
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<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>		Docket Number (Optional) <b>INF-0010</b>		Application Number <b>10/755,863</b>	
		Applicant(s) <b>Ma, et al.</b>			
		Filing Date <b>January 12, 2004</b>		Group Art Unit <b>1763</b>	
<b>*EXAMINER INITIAL</b>	<b>OTHER DOCUMENTS</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>				
	Padture, et al. "Towards Durable Thermal Barrier Coatings with Novel Microstructures Deposited by Solution-Precursor Plasma Spray". Acta mater. 49 (2001) 2251-2257				
	Su, et al. "In Situ Characterization of Small-Particle Plasma Sprayed Powders". Journal of Thermal Spray Technology Vol. 11 (1) March 2002 pp 52-61				
	Parukuttyamma, et al. "Yttrium Aluminum Garnet (YAG) Films through a Precursor Plasma Spraying Technique". J. Am. Ceram. Soc., 84 (8) 1906-1908 (2001)				
	Tikkanen, et al. "Characteristics of the liquid flame spray process". Surface and Coatings Technology 90 (1997) 210-216				
	Schlichting, "Failure Modes in Plasma-Sprayed Thermal Barrier Coatings" University of Connecticut, (2000) 186 pages				
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